



County Borough of Tynemouth.

FORTY-FIRST

ANNUAL REPORT

OF THE

Medical Officer of Health.

1921.

INDEX.

	PAGE.
Letter of Address	3
Statistical Summary	4, 37
Committee and Staff	5
General Statistics.	
Population	6
Births	7
Deaths	7, 8, 39, 40
Infantile Mortality	8, 41, 42
Notifiable Diseases during the Year.	
Notifications of Infectious Diseases	9, 38
Smallpox	9, 23
Scarlet Fever	9
Diphtheria, Enteric Fever, Erysipelas and Encephalitis Lethargica	10
Cerebro-Spinal Meningitis, Malaria and Pneumonia	11
Tuberculosis	11, 12
Tuberculosis Dispensary... ..	13, 14
Venereal Diseases	14, 15, 23, 25
Cancer and Malignant Disease	15
Respiratory Diseases and Influenza	16
Nursing Arrangements, Hospitals and other Institutions available in the District.	
Home Nursing	16
Midwives	16, 17
Care of Expectant Mothers	18
Necessitous and Complicated Cases of Pregnancy	18, 23
Milk (Mothers and Children) Order	18
Infant Hygiene	18
Co-ordination of Work with School Medical Services	19
Puerperal Fever and Ophthalmia Neonatorum	19
Diarrhoea and Enteritis	20
Still Births	20
Measles and Whooping Cough	20
Maternity and Child Welfare Centre	20, 21
Frater Maternity Home... ..	21
Tuberculosis Hospitals	22, 23
Moor Park Hospital	22
Institutional Provision for Unmarried Mothers	23
Ambulance Facilities	24
Laboratory Work.	
Bacteriological Laboratory	24
Diphtheria Anti-toxin, Serum or Vaccines	25
Adopted Acts	25, 26
Water Supply	26
Sanitary Administration.	
Nuisances	27
Sanitary Conveniences	27, 28
Work of Sanitary Inspectors	28
Food	29
Slaughter Houses	29
Disinfection of Clothing and Premises	29, 30
Sale of Food and Drugs Acts	30, 31, 32
Milk and Cream Regulations, 1912 & 1917	32
Dairies, Cowsheds and Milkshops Orders	32, 33
Offensive Trades	33
Factories and Workshops	33
Rag Flock Act, 1911	34
Rats and Mice (Destruction) Act, 1919	34
Seamen's and Common Lodging Houses	34
Housing.	
New Houses Erected	34
Unfit Dwelling Houses	35, 36

PUBLIC HEALTH OFFICE,
TYNEMOUTH,

15TH MAY, 1922.

*To the Mayor, Aldermen and Councillors
of the County Borough of Tynemouth.*

MR. MAYOR AND GENTLEMEN,

I have the honour of submitting to you my Thirteenth Annual Report, being the 41st Report presented to you by successive Medical Officers.

The form of the Report has been altered in accordance with circular 269, dated 28th December, 1921, issued by the Ministry of Health to Medical Officers.

The circular desires a detailed survey report every fifth year, whilst an ordinary, somewhat abridged, report may be submitted during the intervening years. The next survey report is to be prepared for 1923.

During the year the census was taken, and the increase in population according to the preliminary report issued by the Registrar General was 4,970.

The auxiliary venereal diseases centre at Preston Hospital was opened in the month of August, and the attendance to the end of the year shows that it is going to be of material assistance in supplementing the work at Newcastle.

In 1917 the birth rate fell to the low figure of 22.05 per 1,000, but increased in 1920 to 32.6. I have to record that it has again fallen to 26.7 per 1,000 of the population, due no doubt to the severe depression and lack of work which clouded industry during the past year.

I would again take the opportunity of thanking the Chairman and Members of the Health Committee for the assistance and courteous consideration which they have extended to me throughout the year, and to my colleagues and members of the staff of the Health Department, as well as to other Corporation Officials for their valuable and ready help at all times.

I have the honour to remain,

Your obedient servant,

JAS. A. HISLOP,

Medical Officer of Health.

GENERAL STATISTICS.

Area	...	...	...	...	...	...	4,288 acres.
Population (estimated 1921)	...	...	...	...	...	...	63,900.
Number of families or separate occupiers (1921)	...	...	...	...	...	...	13,346.
Rateable Value	...	...	...	...	...	...	£329,715.
Sum represented by a penny rate (estimated)	...	...	...	...	...	...	£1,300.

Extracts from Vital Statistics of the Year.

		Total.	M.	F.		
Births	{ Legitimate	...1625	844	781	} Birth Rate (R.G.) 27·3.	
	{ Illegitimate	... 83	39	44		
Deaths	...	... 877	467	410	... Death Rate (R.G.) 13·3.
Number of women dying in, or in consequence of childbirth		{	from sepsis	1
			from other causes	2.

Deaths of Infants under one year of age per 1,000 births :—

			RATE.
Legitimate—158 ; Illegitimate—18 ;	...	Total 176	...103 per 1,000 births
Deaths from Measles (all ages)	...	„ 15	...0·23 per 1,000 of population.
Deaths from Whooping Cough (all ages)	...	„ 15	...0·23 do.
Deaths from Diarrhoea (under 2 years of age)	...	30	...17·5 per 1,000 births.
Deaths from Respiratory Diseases	...	„ 151	... 2·3 per 1,000 of population.

County Borough of Tynemouth

PUBLIC HEALTH COMMITTEE.

Chairman :—COUNCILLOR J. FRATER, J.P.

Vice-Chairman :—COUNCILLOR JAS. HARRISON, M.D.

THE MAYOR, COUNCILLOR COATS.

ALDERMAN HUTCHINSON.
 " PORTER.
 COUNCILLOR ATKINSON.
 " CLARKSON.
 " DOUGLASS.
 " FITZHUGH.
 " HASTIE.
 " MIDDLETON.

COUNCILLOR MILLER.
 " ROWE.
 " SCORER.
 " SHANNON.
 " SHOTTON.
 " THIRKLE.
 " WAINE.

STAFF OF PUBLIC HEALTH DEPARTMENT.

*Medical Officer of Health, Administrative Tuberculosis Officer, and
 Medical Officer to the Education Authority.*

JAMES A. HISLOP, M.D. (Brux.); L.R.C.P. ; D.P.H.

Assistant Medical Officer of Health and Tuberculosis Officer.

JOHN OLIVER MURRAY, M.B., CH.B., D.P.H. (Ed.)

Medical Officer, Maternity and Child Welfare Centre.

AMY ROBINSON, M.D. (Edin.)

*Chief Sanitary Inspector, Inspector under the Housing, Town Planning, etc.. Act.
 Food and Drugs Acts., etc.*

GIBSON EDWARDS, A.R.S.I.

Assistant Inspectors.

WILLIAM L. MCQUEEN, A.R.S.I. JAMES STANLEY, A.R.S.I., Cert. Meat Inspection.

EDWARD E. MILBURN, Cert. R.S.I.

Disinfector.

HENRY HODGSON.

Tuberculosis Nurse.

MISS MILLS.

Health Visitors.

MISSES MINTO, SHAW, CRAIK AND BELDON.

Clerks.

ALBERT R. FORSYTH, Chief Clerk.

STANLEY H. MOFFAT, Clerk.

MISS HUITSON, Typist.

MISS BARNESLEY, Junior Clerk.

Matron of Moor Park Infectious Diseases Hospital.

MISS M. EWART.

Matron of Frater Maternity Home.

MISS M. MATTHEWSON.

GENERAL STATISTICS.

—0—

POPULATION.

The population of the Borough at the census of 1921, taken on 19th June, was 63,786, and on 30th June the population as estimated by the Registrar General, had increased to 63,900.

The **natural increase** of population or the excess of the number of births over deaths during 1921 was 831.

The distribution and density of population are shown in the following table :—

DISTRIBUTION AND DENSITY OF POPULATION.

WARDS.	Population estimated to 30th June, 1921.	Area in Acres.	Persons to the Acre.
Central	5431	30	181·0
Collingwood	8444	2299	3·6
Dockwray	7078	82	86·3
Linskill	9672	314	30·8
Milbourn	6092	114	53·4
Percy	6885	762	9·0
Preston	6372	564	11·3
Rudyard	5902	41	143·9
Trinity	8024	82	97·8
County Borough of Tynemouth ...	63900	*4288	14·9

* Exclusive of 2 acres in Percy Ward, 81 in Collingwood Ward, and 1 in Preston Ward, which are covered by water.

The number of families or separate occupiers in the Borough is 13,346.

The rateable value of the Borough is £329,715, and the sum represented by a penny rate is estimated to be £1,300.

I am indebted to Mr. T. Percival, Clerk to the Tynemouth Union, for the following particulars in respect to Poor Law Relief in the County Borough of Tynemouth for the year ended 31st December, 1921.

The average daily number of inmates in the Union Institution was 221, and the average daily number in the children's homes was 41. The amount expended in out-door relief in the County Borough was £6,076 8s. 11d.

BIRTHS.

The **nett total births** assignable to Tynemouth were 1,708, giving a **birth rate of 26·7 per 1,000 of the population**. 883 births were males, and 815 females : 1,625 were legitimate, and 83 illegitimate.

The birth rate in England and Wales during 1921 was 22·4, and for the Great Towns 23·3 per 1,000.

The transferable births were :—

				INWARD TRANSFERS.	OUTWARD TRANSFERS.
Legitimate	Males	...	...	9	9
	Females	...	...	5	4
Illegitimate	Males	...	...	1	11
	Females	...	...	1	7

BIRTHS AND BIRTH RATES IN WARDS.

WARD.	BIRTHS.	Birth Rate per 1,000 of Population.	No. of Illegitimate Births.	Percentage of Illegitimate Births to Total Births.
Central ...	181	33·3	9	4·9
Collingwood ...	229	27·1	6	2·6
Dockwray ...	279	39·4	33	11·8
Linskill ...	165	17·0	5	3·0
Milbourn ...	214	35·1	3	1·4
Percy ...	143	20·7	3	2·1
Preston ...	153	24·0	7	4·5
Rudyard ...	176	29·8	10	5·6
Trinity ...	152	18·9	5	3·2
Inward Transfers ...	16	—	2	—
Borough of Tynemouth	1708	26·7	83	4·8
Mean of Ten Years— 1912-1921 ...	1649	26·7	72	4·3

DEATHS.

The total number of deaths recorded in the Borough was 955, but of these 125 were non-residents. 47 deaths of residents also occurred outside the borough. The **nett deaths** were therefore 877, which is equal to a **death rate of 13·72 per 1,000 of the population**.

The death rate for the year in England and Wales was 12·1, and for the Great Towns 12·3 per 1,000.

DEATHS IN PUBLIC INSTITUTIONS.—The number of deaths of persons belonging to Tynemouth which occurred in public institutions during the year was as follows :—

Tynemouth Poor Law Institution	...	...	...	110
Tynemouth Victoria Jubilee Infirmary	...	...	...	32
Moor Park Isolation Hospital	...	...	...	12
Frater Maternity Home	...	...	...	5
Other Institutions outside the Borough (including 12 deaths in Morpeth Asylum)	...	...	...	27

This makes a total of 186, which is 21.2 per cent. of all deaths of residents during the year.

DEATHS AND DEATH RATES IN WARDS.

WARD.	Total Deaths.	Death Rate per 1,000 of Population.
Central	79	14.5
Collingwood	104	12.3
Dockwray	119	16.8
Linskill	81	8.3
Milbourn	87	14.2
Percy	72	10.4
Preston	90	14.1
Rudyerd	152	25.7
Trinity	93	11.5
Borough of Tynemouth ...	877	13.72
Mean of 10 years—1912-1921...	983	16.65

The deaths occurring in each quarter were as follows :—

<i>Period.</i>	<i>Number of Deaths.</i>	<i>Death rate per 1,000.</i>
First Quarter	275	17.2
Second Quarter	190	11.9
Third Quarter	191	11.9
Fourth Quarter	221	13.8

INFANTILE MORTALITY.—There were 176 deaths of children under one year of age, which gives an **infant mortality rate of 103 to every 1,000 children born.**

There were 18 deaths of illegitimate infants, which gives an illegitimate infant mortality rate of 216.8 per 1,000 illegitimate births.

The infant mortality rates for England and Wales and for the Great Towns were 83 and 87 respectively.

INFECTIOUS DISEASES.

The following table shows the number of notifications of notifiable infectious diseases received since 1917 :—

YEAR.	Pneumonia.	Influenzal Pneumonia.	Dysentery.	Malaria.	Measles and Ger'n measles	Scarlet Fever	Diphtheria.	Enteric Fever.	Puerperal Fever.	Erysipelas.	Cerebro- Spinal Fever.	Acute Poliomyelitis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Tuberculosis Other Forms.	Encephalitis Lethargica.
1917	...	...	...	...	1159	51	20	32	4	38	1	...	19	110	68	...
1918	...	...	...	...	220	49	29	21	1	33	2	1	14	91	63	...
1919	79	31	2	29	1628	76	31	8	4	44	1	...	38	99	53	...
1920	145	36	...	10	...	140	51	10	4	33	...	...	29	129	49	2
1921	166	8	...	5	...	299	49	14	4	34	1	...	27	104	58	3

SMALLPOX.—In the month of July two cases were brought to the notice of the Medical Officer of Health as suffering from suspected smallpox. In one case the illness proved to be measles, and in the second case chicken pox.

14 contacts were notified arriving from infected ports or from steamers on which a case of smallpox had occurred during the voyage. All were kept under observation but none developed the disease.

Through the courtesy of Mr. Percival, Clerk to the Tynemouth Guardians, I am enabled to give the following figures relative to the vaccination of children within the Borough for the year 1920.

Births.	Vaccinated.	Insus-ceptible.	Dead.	Conscien-tious Objectors.	Postponed.	Removed	Unac-counted.	Percentage not vaccinated including Columns 5, 6, 7, & 8.
1	2	3	4	5	6	7	8	9
1927	721	8	125	1040	10	15	4	55.68

One re-vaccination was performed by the Medical Officer of Health under the Public Health Act (Smallpox Prevention) Regulations, 1917.

SCARLET FEVER.—Cases notified, 299 ; deaths, 3 ; fatality per cent., 1.0. The cases were fairly evenly distributed throughout the months of the year and reached a maximum in June and July when the figure increased to 35 cases in each of these months.

42 of the cases notified were persons between the ages of 15 and 45 years of age. A very large number of the cases reported were mild in character and in many instances attention was only directed to the nature of the illness when peeling was detected.

DIPHTHERIA.—Cases notified, 49 ; deaths, 3 ; fatality per cent., 6·1.

The prevalence of diphtheria shows a slight decrease over the previous year. The maximum number of cases notified was eleven during the month of February, whilst in the month of July not a single case was notified.

279 swabs were examined from the throats of contacts, convalescents, or suspected cases of the disease.

47 phials of diphtheria antitoxin containing 2,000 units each were distributed during the year for treatment or prophylactic use.

ENTERIC FEVER.—Cases notified, 14 ; deaths, 5 ; fatality per cent., 35·7.

The borough was quite free from enteric fever during the first seven months of the year until a case was notified in the month of August, and eight out of the fourteen cases can be traced to this first source of infection. Six out of the eight cases occurred in one family, and the remaining cases occurred during the succeeding months of the year and in different parts of the borough.

ERYSIPELAS.—Cases notified, 34 ; deaths, 0 fatality per cent., 0·0.

ENCEPHALITIS LETHARGICA.—Cases notified, 3 ; deaths, 1 ; fatality per cent., 33·3.

The first case was notified in the month of January, and the patient was a woman 22 years of age occupied at home. The patient died on the same day that the notification was received, but had complained of not feeling well since Xmas day. The patient seemed to get drowsy although there had been active delirium during the night and during the three days prior to death ; when spoken to she could answer but immediately lapsed into a drowsy condition.

The second case was notified on 23rd February, and the patient was a male aged 5 years. The case had first pneumonia and became lethargic

about the fifth or sixth day of the disease. As the temperature fell he had ptosis but no squint or nystagmus. The patient, however, eventually recovered and appears to have regained fairly good health.

The third case occurred in a boy nine years of age, and was notified on 20th June. He had complained of severe pains in the head with drowsiness and vomiting from 8th June. On the 20th June slight external strabismus of the right eye was noticed with dilated pupil. This patient also recovered but for a considerable time remained forgetful.

CEREBRO-SPINAL MENINGITIS.—Cases notified, 1 ; deaths, 1 ; fatality per cent., 100·0.

The patient was a female aged 18 years, and notified on 12th December. She had complained of severe headache with delirium and vomiting from about 4th December. There was considerable rigidity of the neck muscles, and the patient remained acutely ill throughout the whole of her illness, which terminated fatally.

The cerebro-spinal fluid was examined and the report stated that there were one or two organisms present suggestive of meningococcal infection.

MALARIA.—Cases notified, 5 ; deaths, 0 ; fatality per cent. 0·0. All cases had been contracted abroad.

PNEUMONIA.—Cases notified, 114 ; deaths, 69 ; mortality rate per 1,000 1·08.

TUBERCULOSIS.—The total number of notifications received during 1921 was 186, relating to 162 new cases, 24 of the total number were notified more than once, and were made up as follows :—

		Form A.		Form B.		Totals.
		Males.	Females.	Males.	Females.	
Pulmonary	...	60	42	2	—	104
Non-pulmonary	...	28	21	6	3	58
Totals	...	88	63	8	3	162

29 notifications on Form C. and 20 on Form D. were also received.

(1). PULMONARY TUBERCULOSIS.—Deaths, 73; mortality rate per 1000, 1.14. The distribution of the deaths with the mortality rate in each ward was as follows :—

WARD.	Popula- tion.	Notifica- tions.	Deaths.	Mortality Rate.					
				1921	1920	1919	1918	1917	1916
Central ...	5431	12	9	1.65	1.17	0.89	3.16	0.61	1.23
Collingwood	8444	10	8	0.94	1.00	0.39	1.35	1.31	1.05
Dockwray ...	7078	12	7	0.98	1.64	2.02	2.91	2.35	1.73
Linskill ...	9672	15	9	0.93	0.65	0.68	1.89	0.57	0.69
Milbourn ...	6092	10	3	0.49	2.08	1.95	1.50	2.91	0.91
Percy ...	6885	6	5	0.72	1.07	1.12	1.83	0.96	0.97
Preston ...	6372	4	6	0.94	0.99	0.69	1.07	1.39	0.87
Rudyard ...	5902	19	20	3.38	2.69	2.98	2.52	1.69	2.27
Trinity ...	8024	16	6	0.74	1.18	1.37	1.42	1.38	0.97
Whole Borough	63900	104	73	1.14	1.32	1.27	1.90	1.42	1.15

NOTIFICATIONS AND DEATHS IN RELATION TO AGE AND SEX INCIDENCE.

AGE IN YEARS.		Under 1	1-5	5-15	15-25	25-45	45-65	65 & over.	Totals.
Notifications	Males	—	1	7	13	33	8	—	62
	Females	1	1	7	6	22	5	—	42
Total									104
Deaths	Males	—	—	3	7	18	5	—	33
	Females	—	2	5	11	17	5	—	40
Total									73

(2). NON-PULMONARY TUBERCULOSIS.—Deaths, 25; mortality rate per 1,000, 0.39.

NOTIFICATIONS AND DEATHS IN RELATION TO AGE AND SEX INCIDENCE.

AGE IN YEARS.		Under 1	1-5	5-15	15-25	25-45	45-65	65 & over.	Totals.
Notifications	Males	1	9	17	2	3	2	—	34
	Females	4	6	10	1	3	—	—	24
Total									58
Deaths	Males	2	4	3	4	1	1	—	15
	Females	3	3	1	—	3	—	—	10
Total									25

At the end of each week the death return from the Registrar is carefully examined, and all deaths from tuberculosis noted to ascertain whether they have been duly notified. In 19 instances, however, during the year

it was found that no notification had been received, although the death had been registered as tuberculosis. In each instance the medical practitioner was written to drawing his attention to the fact and requesting a notification of the case.

REPORT UPON DISPENSARY AND INSTITUTIONAL TREATMENT BY DR. MURRAY.

TUBERCULOSIS DISPENSARY.

The number of **new cases examined** during the year was 182. This figure includes 59 “ **contacts** ” who had been exposed to the risk of infection. The number of “ contacts ” found to be infected was 7, while 12 are being kept under observation. There are two beds at Moor Park Hospital specially reserved for observation cases. Other cases attend the dispensary weekly.

The following table gives an analysis of new cases found to be suffering from tuberculosis :—

NEW CASES.	Pulmonary.		Non-Pulmonary.		Total.
	M.	F.	M.	F.	
Insured ...	46	3	1	2	52
Uninsured ...	5	8	0	0	13
Children ...	14	18	16	10	58
Total ...					<u>123</u>

TREATMENT.—Hygienic and dietetic measures have been adopted in all cases under treatment. In addition, when suitable cases have presented themselves, tuberculin has been administered ; in subjects with the disease confined to one lung artificial pneumothorax has been induced with success.

The cases treated at the clinic may be classified thus :—

TREATED.	Pulmonary.		Non-Pulmonary.		Totals.
	M.	F.	M.	F.	
Insured	138	16	9	4	167
Uninsured	10	32	3	4	49
Children ...	48	39	30	33	150
Totals ...	<u>196</u>	<u>87</u>	<u>42</u>	<u>41</u>	<u>366</u>

The results of treatment at the end of the year were :—

	Still attending.	Not attending.	In Sanatoria.	Left District.	Not able to attend.	Disease arrested and treatment ceased.	Died.	Totals.
Adults ...	137	22	14	12	5	3	23	216
Children ...	99	23	4	1	2	12	9	150

The following table shows the occupation of those attending the clinic :—

	Males.	Females.
Inside Manual Workers	30	4
Clerks, Shop Assistants, and other inside workers ...	13	17
Discharged Soldiers, Sailors, and W.A.A.C.	103	1
Outdoor Workers	11	3
Housewives, Domestics ... ..	...	27
Scholars	73	65
Under school age or no occupation	8	11
	238	123.

The number of cases treated in sanatoria during the year was 49, 42 of which were pulmonary, 5 non-pulmonary, and 2 observation cases. Of these 34 were males and 15 females. 29 were adults, 8 children, and 12 ex-service men whose condition was due to service in the war.

They were distributed as follows :—

SANATORIUM.	In Sanatorium 1st Jan., 1921.		Admitted during year.		Discharged during year.		Died.		In Sanatorium on 31st Dec., 1921.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Woodburn ...	4	—	8	—	8	—	—	—	4	—
Moor Park ...	4	3	21	6	15	6	4	1	6	2
Stannington	2	2	3	4	3	3	—	1	2	2
Barrasford ..	—	2	2	5	1	6	—	—	1	1

NON-NOTIFIABLE DISEASES.

VENEREAL DISEASES.—The auxiliary treatment centre at the Preston Hospital, North Shields, was opened on 29th August. This clinic supplements the free treatment provided at the Skin Department of the Newcastle Royal Victoria Infirmary.

The number of persons from Tynemouth treated at the various clinics in the district is given in the following table :—

Disease.	Treatment Centre.		
	Newcastle.	South Shields.	Tynemouth.
Syphilis	55	6	31
Soft Chancre	4	1	1
Gonorrhoea	35	25	7
Conditions other than venereal ...	10	13	3
Total new cases from Tynemouth	104	45	42
Attendances	1537	940	367
In-patient days	239	12	19
Doses of Salvarsan—			92
Substitutes (Out-patients)	313	44	92
Substitutes (In-patients) ... ..	...	...	...

5 deaths were registered during the year from syphilis or “ specific ” disease.

CANCER AND MALIGNANT DISEASE.—Deaths, 53 ; mortality rate per 1,000, 0·82.

One death occurred between 15 and 25 years ; seven between 25 and 45 years ; 27 between 45 and 65 years ; and 18 over 65 years of age.

The sex distribution and localisation of the disease were as follows :—

LOCALISATION.	15-25 yrs.		25-45 yrs.		45-65 yrs.		65 yrs. & upwards.	
	M.	F.	M.	F.	M.	F.	M.	F.
Stomach, liver, etc. ...	—	—	—	—	3	7	1	4
Rectum, peritoneum and intestines	—	—	1	—	1	3	4	1
Tongue, mouth, etc. ...	—	—	1	—	4	1	4	—
Female genital organs ...	—	—	—	—	—	4	—	1
Breast	—	—	—	1	—	—	—	1
Unclassified	1	—	2	2	4	—	2	—

During the ten years, 1904-1913, the mean annual mortality rate from cancer was ·72 per 1,000. During the following eight years—1914-1921—the mean rate was ·84. It would almost appear from these figures that the incidence of malignant disease is increasing, and although this may be true to a certain degree, it must be recollected that the diagnosis of disease is much more precise than it used to be, and it is possible that the true cause of death may be more accurately certified than has been the case in past years.

RESPIRATORY DISEASES.—Deaths, 151 ; mortality rate per 1,000 2·3.

INFLUENZA.—Deaths, 18 ; mortality rate per 1,000 0·28.

During the first three months of the year influenza of a mild character was more or less prevalent, but during the summer months the disease almost disappeared, as will be seen from the monthly mortality from influenza and pneumonia in the following table :—

	Total Deaths.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Inward Transfers.
Influenza ...	18	2	5	5	—	—	—	1	1	1	1	—	2	—
Pneumonia...	69	14	10	10	4	5	1	1	4	4	3	3	9	1

NURSING ARRANGEMENTS, HOSPITALS AND OTHER INSTITUTIONS AVAILABLE FOR THE DISTRICT.

Home Nursing.—Under the Maternity and Child Welfare scheme provision has been made for nursing, and an arrangement has been entered into whereby a retaining fee is paid to the Tynemouth Nursing Association for the services of a nurse to undertake work as provided for in the Maternity and Child Welfare Regulations. A small fee per visit is given in addition to the retaining fee. This arrangement has been in operation since 1st December, 1919.

There are two societies in the Borough which provide nursing assistance for the sick. The Tynemouth Nursing Association employ two permanent nurses, and during the year engaged a third nurse. They attended 281 cases and made 10,442 visits. The Ladies' Benevolent, Dorcas and Nursing Society also employ a nurse. Both of these are private associations carried on by voluntary workers.

Midwives.—The following is the revised list of persons certified as midwives resident or practising within the Borough :—

Name.	Address.	No. of Certificate.
Carter, Henrietta	... 25, King Street, North Shields	... 49124
Corney, Catherine	... Frater Maternity Home, No. Shields...	52258
Emmerson, Margaret	... 11, Waldo Street, North Shields	... 20153
Gallon, Agnes	... 25, Nelson Street, Willington Quay	... 10670
Gibbs, Sophie	... 10, Railway Terrace, North Shields	... 29076
Hart, Dorothy	... 37, Stephenson Street, North Shields...	19570

Name.	Address.	No. of Certificate.
Hodgkinson, Ethel M. ...	Nursing Centre, Tynemouth Road, Willington	30206
Laidler, Violet M. ...	66, Stephenson Street, North Shields...	18873
Leithead, Hannah ...	Frater Maternity Home, No. Shields...	54901
Liddle, Ethel ...	32, Sidney Street, North Shields ...	43185
Matthewson, Margaret ...	Frater Maternity Home, No. Shields...	46551
May, Harriet ...	Nursing Centre, Tynemouth Road, Willington	45760
Romaine, Florence ...	do. do. ...	52696
Smith, Margaret A. ...	Frater Maternity Home, No. Shields...	53987
Summers, Grace W. ...	Nurses' Home, Smeaton Street, Willington	2687
Swanston, Kate ...	7, Marden Crescent, Whitley Bay ...	12600
Warren, Isabella ...	11, Linskill Street, North Shields ...	14146
Whiteford, Frances ...	25, King Street, North Shields ...	50042
Young, Ellen ...	28, Percy Street, Tynemouth ...	31031

No subsidy is given by the Public Health Authority to any practising midwife.

The number of cases attended during the year by midwives was 911, or 53·3 per cent. of the births notified.

Work of Midwives.

Year.	Midwives.	Cases attended.	Medical aid summoned.	Stillborn.	Miscarriages.
1916	13	666	31	56	1
1917	12	497	40	42	4
1918	12	735	75	21	22
1919	15	822	128	36	1
1920	16	957	136	38	6
1921	19	911	137	38	9

Medical aid was summoned during 1921 for the following reasons :—
Illness of mother, 91 ; Illness of child, 46.

Under the Midwives Act, 1918, provision is made whereby a midwife shall call in to her assistance in any emergency a registered medical practitioner. This Act came into operation on 1st January, 1919, and the average number of births per year attended by midwives for the ten years, 1909-1918, was 600. The average number of times per year medical aid was summoned during the same period was 28.

The following table shows the increase in the number of times that medical aid was summoned since the Act took effect :—

Year.	Number of births attended by midwives.	Number of times medical aid was summoned.	Percentage.
1919	822	128	15·5
1920	957	136	14·2
1921	911	137	15·0

The Care of Expectant Mothers.—The Health Visitors made 1,125 visits during the year to expectant mothers. A number of cases were referred to the ante-natal clinic by doctors, some by midwives, whilst others who had not engaged a midwife or a doctor were advised to attend by the Health Visitors themselves.

100 consultations for expectant mothers were held during the year.

Necessitous and complicated cases of pregnancy are admitted by special arrangement to the Jubilee Infirmary, an Institution in close proximity to the maternity home itself, where two beds are at the disposal of the Maternity and Child Welfare Centre. Two cases were admitted during the year with the following complications :—Caesarian section 1 ; malpresentation 1.

Milk (Mothers and Children) Order.—Dried milk has been supplied free or at less than cost price in 95 cases. This work has been ably carried out by means of voluntary help under the supervision of Mrs. Alfred Hill, and the following are details of the milk supplied :—

No. of persons receiving milk at less than cost price	...	4
No. of persons receiving milk free	... ..	91
No. of lbs. of milk distributed at less than cost price		47
No. of lbs. of milk distributed free	... ..	786

From the voluntary section of the work 10,244 lbs. of dried milk were supplied at cost price, in addition to other food stuffs.

Infant Hygiene.—The total number of births notified during the year was 1,803, including 76 still births and 35 outward transfers. Of the total births 680 were notified by medical men, 892 by midwives, and 231 by parents or others. 52 births during the year were found not to

have been notified, but these were duly intimated after the requirements of the Notification of Births Acts were brought to the notice of the persons concerned.

The number of first visits by the Health Visitors was 1,654 and of these 461 births occurred in houses of one apartment, 523 in houses of two apartments, 323 in houses of three apartments, 199 in houses of four apartments and 148 in houses of five apartments or over.

10,341 re-visits were made to infants under 1 year and 6,354 to children from one to five years.

Co-ordination of work with School Medical Service.—The two services are co-ordinated in that they are both under the administrative supervision of the Medical Officer of Health. As soon as the cards relating to the children of 5 years of age have been completed they are forwarded to the School Medical Officer in order that he may record any ailments or defects of the child during the first five years of its life upon the school record cards. The early history of the child is thus available to the School Medical Officer during the course of any subsequent ailment which may occur.

Puerperal Fever.—Cases notified, 4 ; deaths, 1 ; fatality per cent., 25·0.

Three of the cases occurred in the practice of medical practitioners, and in one case the patient was attended by a midwife. In the latter case instructions were given as to the disinfection of the midwife's person, and her outer garments and bag with instruments were carefully disinfected. All the cases were treated in hospital.

Ophthalmia Neonatorum.—The total number of cases notified during the year was 27 ; 13 of these were cases occurring in the practice of a midwife, and 14 occurred in cases attended at birth by a medical man.

The Local Authority have an arrangement with the District Nursing Association whereby their nurses attend to and treat all cases if the medical man who has been called in desires nursing assistance. With the exception of one case which occurred at the Frater Maternity Home, and six cases in which a medical practitioner was in attendance from birth and who did not request nursing assistance, the remaining cases were nursed by the staff of the Nursing Association. A total of 945 visits was made by the nursing staff to the infants affected. There were no deaths amongst the infants, and in none of the cases notified was there any permanent injury to both eyes, but in three instances there was injury to one of the eyes affected.

Diarrhoea and Enteritis.—Deaths under two years, 30 ; mortality rate per 1,000 births, 17·5. The mortality rates for England and Wales, and the Great Towns, were 15·5 and 19·3 respectively.

The Health Visitors make inquiry at the homes of all cases where deaths are observed in the weekly mortality returns, and in such other cases as may come to their knowledge during the course of ordinary routine visitation. The staff of the Nursing Association made 30 visits to cases of epidemic diarrhoea during the year.

Still Births.—There were 76 still births, and allocated to wards were as follows :—

Ward.	Central.	Collingwood.	Dockwray	Linskill.	Milbourn.	Percy.	Preston.	Rudyard.	Trinity.
Still-births	10	4	11	4	6	6	9	16	10

Three of these were illegitimate children.

73·6 per cent. of the still-births occurred in houses with three rooms or under. Efforts are made to get parents affected with syphilis treated at the venereal diseases clinic.

Measles.—Deaths, 15 ; mortality rate per 1,000, 0·23.

13 notifications were received at the Health Office from parents. The number of cases occurring in school children reached a maximum in the month of July, when 71 cases were recorded. After the school holidays however, in the month of August, the cases gradually decreased, only one case coming to the notice of the School Authorities in October, and two cases in each of the months of November and December.

Whooping Cough.—Deaths, 15 ; mortality rate per 1,000, 0·23.

Like measles, the number of cases occurring in school children reached a maximum in the month of July, and gradually decreased towards the end of the year.

CLINICS AND TREATMENT CENTRES.

Report upon the Maternity and Child Welfare Centre by Dr. Amy Robinson.—During the year 1921, 1,596 children made 5,936 attendances at the Centre. Of these 997 children were under one year, and made 3,897 attendances, and 599 were children between one and five years old.

54 expectant mothers made 100 attendances.

Consultations were held on three afternoons each week. The average attendance being 116 per week. This was a slight decrease on the preceding year, and was probably partly accounted for by the miners' strike and the general distress prevailing in the Borough.

At each consultation tea was provided, and a short health talk was given by one or other of the Health Visitors whenever possible.

The new premises have proved of great service and the arrangements for the weighing of the children are much more satisfactory.

Dr. Amy Robinson was absent for six months, and during that time the consultations were held by Dr. MacGlashan.

It was thought advisable not to hold Baby Week celebrations, except for tea and sports for regular attenders at the consultations, on which occasion certificates of attendance at the consultations and prizes for the sports were presented by the Chairman of the Health Committee.

Bags of linen were lent to 19 maternity cases. For the most part these were returned in good condition. The linen has been examined and brought up-to-date.

The Committee have to thank the V.E.M. Committee for their extremely useful work in the distribution of dried milk, etc., which has considerably helped the work of the consultations, and being on the same premises has rendered co-operation much easier.

Tuberculosis Clinic.—This has already been reported upon on pages 13 and 14.

Venereal Diseases Clinic.—Particulars and attendances at this clinic will be found on pages 14 and 15.

Frater Maternity Home.—Increased advantage is being taken of the facilities provided at the Frater Maternity Home, which was opened on 6th May, 1920. During the year 1921, 108 cases were admitted and there were 107 confinements, 62 males and 45 females. The average duration of residence was 17·6 days, which is somewhat less than the previous year owing to the greater demand for accommodation. Medical aid was requisitioned in eleven instances, and no cases of puerperal fever occurred amongst the patients.

Tuberculosis Hospitals.—Provision has been made by the Local Authority for early male cases at Woodburn Sanatorium, Edinburgh, and for female cases at Barrasford Sanatorium, Northumberland. At the former institution there are four beds and at the latter two beds. For children the Council have also taken four beds at Stannington Sanatorium, Northumberland. For the latter stages of the disease, and for observation, patients are removed to Moor Park Hospital, where eight beds have been provided for tuberculous cases.

For the number of cases treated at Sanatoria and Moor Park Hospital, see page 14.

Children's Hospital.—No provision has been made for the treatment of children's diseases.

Moor Park Hospital.—The number of cases admitted during the year was 297, and details of admissions and discharged are given in the following table:—

ADMISSIONS, DISCHARGES AND DEATHS DURING 1921.

DISEASE.	Patients in Hospital, 1st January, 1921	Admitted.	Discharged.	Died.	Remaining in Hospital, 31st Dec., 1921.
Scarlet Fever ...	14	228	214	1	27
Diphtheria ...	—	27	22	2	3
Enteric Fever... ..	—	11	7	3	1
Cerebro Spinal Meningitis ...	—	1	—	1	—
Tuberculosis ...	7	27	21	5	8
Totals ..	21	294	264	12	39

One case of suspected Scarlet Fever, one case of suspected Enteric Fever, and one case of Chicken Pox were also removed to hospital during the year.

The total number of days spent in hospital by patients during the year was 14,395 or an average duration of 48·4 days per patient.

At the time of the outbreak of war in 1914, the Local Authority were intending to erect an Isolation Hospital on the newly purchased estate at Balkwell. The site had already been chosen and approved by the Local Government Board, and plans had also been submitted to them for consideration. Later in the year, however, war broke out and the provision of further hospital accommodation was deferred. As there are now many diseases which it is desirable to isolate in addition to scarlet fever, diphtheria and enteric fever for which the accommodation at Moor Park was

originally intended, it is hoped that the Council will in the near future, again consider the question of adequate accommodation for the isolation of the additional infectious diseases made notifiable during the last few years.

Smallpox Accommodation.—The Council further intended that when the new hospital was erected at Balkwell, the present accommodation at Moor Park would be used for the isolation of smallpox cases. Meantime the Corporation have no accommodation of their own for the isolation of such cases, and have only a temporary arrangement with the Earsdon Joint Hospital Board, whereby persons suffering from smallpox will be admitted to their hospital if there is sufficient room.

Other Hospitals.—Three other hospitals are subsidised by the Local Authority for cases of tuberculosis, for maternity cases, and also for venereal diseases. Arrangements have been made with the Tynemouth Jubilee Infirmary for beds for complicated maternity cases and also for cases of tuberculosis requiring surgical interference. These beds are paid for at a fixed rate per day, according to the period they have been occupied either by a tuberculous or complicated maternity case. In addition to the maintenance fee paid to the hospital, there is also a fee paid to the surgeon who undertakes the operative work.

Surgical cases of tuberculosis are admitted as required to this infirmary, and two beds are allocated to complicated cases of maternity.

The other two hospitals supported by the Council are the free treatment clinics for cases of venereal diseases at the Royal Victoria Infirmary, Newcastle, and the Preston Hospital, North Shields. The Skin Clinic of the Royal Victoria Infirmary, Newcastle, acts as the chief centre for the treatment of venereal diseases for the Borough, and in-patient treatment at this hospital is accorded to cases at the discretion of the medical officer in charge. The auxiliary centre for the treatment of venereal diseases is the Preston Hospital, North Shields, and statistics of the number of cases treated have already been given.

Institutional Provision for Unmarried Mothers.—The County Borough of Tynemouth Association for Rescue and Preventive work employ a rescue worker, and the Health Committee give a grant to the association to assist them in this deserving work. During the years 1920 and 1921, 64 cases were investigated. Some of the cases were sent to homes where they are trained in household and other work. The majority of the cases have been women between 17 and 45 years of age.

Ambulance Facilities.—The following ambulances are available within the borough :—

- (1) A motor ambulance for non-infectious cases, which was provided by public subscription and handed over to the Corporation on 21st January, 1919. There is a free service limited to accidents and cases of sudden illness in the streets of the borough. Subject to the foregoing, the motor is available to any resident in the borough, or other person residing within a radius of five miles from the borough. A charge is made for the use of the ambulance, but the Chairman of the Watch Committee has authority to reduce or remit the fee in necessitous cases and to decide upon applications by persons within the five miles radius.
- (2) A motor ambulance stationed at Percy Main, purchased by public subscription on behalf of the St. John's Ambulance Brigade (Percy Main Division). A scale of charges is made for the use of the ambulance for non-infectious cases according to the circumstances of the patient.
- (3) A horse-drawn ambulance for infectious cases, provided by the Corporation for the removal of cases of infectious disease to the isolation hospital.
- (4) A horse-drawn ambulance, provided by the Guardians for cases connected with that institution.

Bacteriological Laboratory.—The number and nature of specimens examined since the laboratory was opened will be seen from the following table—

YEAR.	Diphtheria.		Phthisis.		Typhoid Fever.		Ringworm.		Miscellaneous	Totals
	+	—	+	—	+	—	+	—		
1907	36	53	10	24	4	2	—	—	5	134
1908	44	74	3	16	7	5	—	—	2	151
1909	48	157	7	17	8	9	14	—	20	280
1910	80	201	24	46	4	17	169	32	17	590
1911	71	227	28	35	27	23	160	55	19	645
1912	78	169	48	75	6	25	106	38	26	571
1913	94	254	53	177	21	22	105	39	13	778
1914	122	367	61	225	53	77	12	7	8	932
1915	83	314	68	166	100	88	13	4	5	841
1916	116	329	96	150	47	74	1	—	2	815
1917	37	199	66	210	24	26	—	—	8	570
1918	53	218	80	211	14	27	7	1	2	613
1919	30	189	44	154	9	24	4	—	1	455
1920	45	300	51	266	3	21	12	1	1	700
1921	40	239	50	182	11	16	39	3	1	581

Bacteriological examinations for cases of venereal diseases are made at the Durham College of Medicine, Newcastle, and 382 specimens were examined as compared with 513 the previous year.

The clinics from which the specimens were sent are indicated in the following table :—

Nature of Test.	Newcastle V.D. Clinic.	Newcastle Victoria Infirmary	South Shields V.D. Clinic.	Tyne- mouth V.D. Clinic.	Tyne- mouth Infirmary	Private Prac- titioners.
Wasserman Reaction	265	3	11	27	4	63
Microscopical ...	2	2	—	—	—	5
Totals ...	267	5	11	27	4	68

In addition, the following specimens were also examined at the Durham College of Medicine, Newcastle.

Samples of Milk for tubercle bacilli	...	...	...	9
Samples of water for bacteriological examination	...	...	...	2
Blood film for malaria	...	...	...	1
Specimens of fluid for cerebro-spinal fever	...	...	...	4

Use of diphtheria anti-toxin, serum or vaccines.—47 phials of diphtheria anti-toxin, each containing 2,000 units, were distributed during the year for treatment or prophylactic use.

71 phials (each of 1,500 units) of tetanus anti-toxin were given out during the year to cases of accident.

ADOPTED ACTS.

Date of Adoption.

Public Library Act	...	...	...	...	13th July, 1868.
Infectious Diseases (Notification) Act, 1889	...	...	...	...	23rd October, 1889.
Infectious Diseases (Prevention) Act, 1891	...	...	...	...	11th September, 1891.
Public Health Acts Amendment Act, 1890—					
Part II.	...	...	...	...	23rd March, 1892.
Part III.	...	...	...	...	9th February, 1891.
Part IV.	...	...	...	...	21st April, 1896.
Part V. (to come into operation 1st Jan., 1921)	...	...	...	...	24th November, 1920.
Public Health Acts Amendment Act, 1907—					
Part II., Sections 15 to 27 and 29 to 33					28th August, 1909.
Part III., Sections 34 to 47 and 49 to 51					
Part IV., Sections 52 to 65 and 67, 68					
Parts V., VI., and X.	...	...	...	...
(Certain adaptations were made by the Local Government Board with regard to Sections 25, 27, 35, 38, 59, 75, and 92).					

Public Health Acts Amendment Act, 1907—*Continued*.

Part VII., Sections 79 to 86	...	...	} 1st February, 1909.
Part VIII., Sections 88 to 90	...	...
Part IX. ... ..	...	...
Notifications of Births Act, 1907	...	...	1st May, 1912.

Water Supply.—Chemical and bacteriological examinations of the Font water supply were made on various occasions throughout the year.

A chemical examination of a sample taken from the laboratory tap on 29th November, gave the following results :—

					Grains per gallon.
Total solid matters in solution, dried at 212°F.	...	...	...	...	10·360
Chlorine existing as chlorides	...	...	...	...	0·696
Ammonia	...	...	...	...	0·002
Albuminoid ammonia	...	...	...	...	0·009
Nitrogen existing as nitrates	...	...	...	...	trace.
Oxygen absorbed in 4 hours at 80°F.	...	...	...	...	0·490
Lead and other poisonous metals	...	...	...	...	none.
Appearance in two-foot tube	...	...	brownish colour ;	clear.	
Smell when heated to 100°F.	...	...	...	...	none.
Microscopical examination of sediment	...	...	satisfactory.		
Lead solvency test	...	...	0·12 parts	per 100,000.	

“This water contains a little more dissolved mineral matter than the last sample, and rather less peaty organic matter. In other respects it is similar to the last sample, reported in February. The lead solvent power of the present sample is also slightly lowered. We are of opinion that the sample is suitable for a town supply.”

A sample taken for bacteriological examination on the same date gave the following results :—

“Colon bacillus test :—“Flaginac” colon bacilli was present in 100 c.c. but not in 10 c.c.

No. of Organisms per c.c. :—On agar at 37°—48 hours. Less than 1 per c.c.”

—o—

SANITARY ADMINISTRATION.

Annual Report of the Chief Sanitary Inspector.

Mr. Mayor, Aldermen and Councillors,

I beg to submit my Sixteenth Annual Report with tables showing the work done in the department during the year 1921.

Nuisances and Defects—The following table shows the nature of nuisances and defects dealt with :—

NUISANCE OR DEFECT.	NOTICES SERVED.			
	Informal.	Statutory	Informal.	Statutory
	Inspected Under Public Health Acts.		Inspected Under Housing, Town Planning, etc., Act, 1909.	
Obstructive and defective drains and gullies	94	17	6	...
Defective privies, W.C.'s and Ashpits ...	139	43	93	4
Defective W.C. cisterns, pipes, etc. ...	12	5	1	...
Defective spouting, eaves, etc. ...	76	22	97	1
Defective walls, floors and ceilings of rooms	146	49	183	12
Cleanse dirty yards, privies, etc. ...	11	...	...	...
Defective surfaces of yards	22	7	28	...
No water supply to W.C.'s	4	...	...	...
Cleanse dirty rooms	5	1	2	...
Dirty and defective washhouses ...	9	7	25	2
Accumulations of refuse or manure ...	13	4	3	...
Defective and obstructed scullery sinks	21	2	1	...
Defective chimneys and fireplaces ...	72	24	94	2
Defective roofs of buildings	82	26	116	4
Defective doors	44	14	48	4
Dirty passages and staircases	5	1	8	...
Defective windows	61	14	126	5
Obstructed W.C.'s	7	3	...	...
Provide dustbin	47	41	...	...
Defective staircases and passages ...	43	19	93	3
No water supply to premises	7	3	...	...
Provide additional W.C.'s	6	6	...	...
Nuisance from fowls and animals ...	3	1	...	...
Damp walls	42	18	19	...
Insufficient ventilation ... ..	...	...	7	...
Defective yard walls	2	1	4	...
Nuisance from stable	1	...	...	...
No washhouses for tenements ... ..	...	...	12	...
Defective sanitary pails... ..	790	582	...	...
Defective pail recess doors	192	102	...	...
No urine guards on privy seats ...	839	87	...	...
Privy ashpit conversions under P.H.A. (Amendment Act) 1907 ... ..	...	166	...	...
Premises infected with rats	3	1	1	...
Totals ...	2828	1266	967	37

Sanitary Conveniences.—The principal system of closet accommodation in the Borough is the conservancy or privy-pail system, which is also used for the deposit of household refuse. There are also a number of privy ashpits which are now being converted to the water carriage system, and

a grant is made to each owner by the Local Authority towards the cost of the conversion, for which the Ministry of Health have sanctioned a loan. In some cases where additional closet accommodation was required, water closets have been provided by the owners after receiving notice, and the water carriage system is the only system now adopted for new buildings.

The following tables show the number of closets converted during the year, and also the total number of existing closets of all kinds.

Privy ashpits converted to water closets	...	...	62
Privy pail closets converted to water closets	...	...	13
Additional water closets provided to existing buildings	...	...	13

At the end of the year it was estimated that there were in existence in the borough 4,514 water closets, 8,923 privy pails, and 1,424 dry ashbins, in addition to the ashpits shown as follows :—

DISTRIBUTION OF PRIVY AND DRY ASHPITS WITHIN THE BOROUGH.

Ward.	Privy ashpits.	Dry ashpits.	Total
Central	4	13	17
Collingwood	184	20	204
Dockwray	17	6	23
Linskill	24	23	47
Milbourn	64	5	69
Percy	4	64	68
Preston	16	30	46
Rudyerd	6	9	15
Trinity	19	6	25
	338	176	514

Work of Sanitary Inspectors.—Periodical and regular inspection of the various districts in the Borough is made by the Inspectors with a view to ascertain what nuisances exist and defects which require remedying. Inspection also includes places where food is prepared, etc., the number and condition of slaughter houses, registered or licensed ; arrangements for disinfection ; action under Dairies, Cowsheds and Milkshops Orders ; action under the Sale of Food and Drugs Acts, and the Milk and Cream Regulations ; the Rag Flock Act ; execution of the Rats and Mice (Destruction) Act ; inspection of Offensive Trades ; inspection of Factories, Workshops and Bakehouses ; and inspection of Seamen and Common Lodging Houses.

Inspection of Places where Food is Prepared.—All places where food is prepared, including the making of ice cream, sausage, pies, confectionery, sweets, etc., are frequently inspected, as well as the apparatus and utensils such as scales, boilers, and other vessels used in their manufacture or preparation.

Unsound Food.—The following articles and quantities of food were condemned during the year as being unfit for human food :—

FISH.			Tons.		Cwts.		Lbs.		Tins.
White Fish	...	...	—	...	9	...	84	...	—
Herrings	...	...	3	...	—	...	56	...	—
Mussels	...	...	—	...	2	...	—	...	—
Haddocks	...	...	—	...	7	...	56	...	—
MEATS, ETC.									
Beef	...	...	—	...	17	...	2	...	—
Mutton	...	...	—	...	—	...	62	...	—
Turkeys	...	...	—	...	—	...	60	...	—
Rabbits	...	...	—	...	—	...	98	...	—
PROVISIONS AND VEGETABLES.									
Cherries in Syrup	...	...	1	...	5	...	42	...	—
Corned Beef	...	...	—	...	—	...	18	...	—
Tuna	...	...	—	...	—	...	—	...	7
Peaches	...	...	—	...	—	...	—	...	1
Rabbits	...	...	—	...	—	...	—	...	4
Salmon	...	...	—	...	—	...	—	...	2
Pineapples	...	...	—	...	—	...	—	...	3
Condensed Milk	...	...	—	...	—	...	—	...	22
Tomatoes	...	...	—	...	—	...	—	...	105
Lobsters	...	...	—	...	—	...	—	...	1

Slaughter Houses registered or licensed.—All registered and licensed slaughter houses are regularly visited during the hours of slaughter or immediately after, with a view of inspecting the carcasses and having the premises kept thoroughly clean or limewashed when required, and to see that all refuse and offal is removed immediately after slaughter.

The number of registered slaughter houses is	...	6
The number of licensed slaughter houses is	...	30

Disinfection and disinfestation.—A high-pressure steam disinfectant is installed at Moor Park Hospital and all articles of clothing, bedding, etc.,

from infectious cases are removed thereto for disinfection. There are in addition each year requests for the disinfection of articles from patients suffering from other diseases and from verminous conditions. There is no cleansing station under the Cleansing of Persons Act, but the Education Committee have an arrangement for the use of the disinfector and premises at the Union Hospital for such cases as may require these facilities.

The vans for the removal of infected clothing and bedding, and the return of disinfected articles made 442 journeys, and the number of days that the disinfector was in use amounted to 211 days. The number of articles of clothing disinfected during the year was 3,100.

Disinfection of premises and articles of clothing.—The following table shows the number of rooms disinfected and number of articles removed and disinfected :—

Disease.			Rooms.		Articles of clothing.
Scarlet fever...	...	...	296	...	2297
Diphtheria ...	...	...	47	...	342
Enteric fever	...	...	11	...	127
Encephalitis lethargica		...	3	...	—
Measles ...	...	...	1	...	—
Tuberculosis	...	...	46	...	215
Vermin ...	...	...	33	...	17
Puerperal fever	...	...	1	...	18
Cancer ...	...	...	4	...	9
Pneumonia ...	...	...	2	...	21
Scabies ...	...	...	1	...	36
Chicken pox	...	...	1	...	18
Cerebro spinal meningitis		...	1	...	—
Other diseases	...	...	4	...	—
			451		3100

Sale of Food and Drugs Acts.—Samples of food and drugs of various kinds are regularly taken under the Sale of Food and Drugs Acts for analysis, a basis of three samples per 1,000 of the population being aimed at annually, and the following table gives particulars of those taken during the year.

ARTICLES ANALYSED.				No. of Samples Analysed.	No. Found Genuine.	No. Found Adulterated.
FORMAL				SAMPLES.		
Milk	...	...	...	96	80	16
Preserved Cream	...	...	...	4	3	1
INFORMAL				SAMPLES.		
Lard	...	...	...	24	24	...
Butter	...	...	...	24	24	...
Gregory powder	...	...	...	1	1	...
Boracic ointment	...	...	...	1	1	...
Ground cassia	...	...	...	1	1	...
Citric acid	...	...	...	1	1	...
White precipitate ointment	...	...	...	1	1	...
Camphorated oil	...	...	...	1	...	1
Tartaric acid	...	...	...	1	1	...
Olive oil	...	...	...	1	1	...
Cream of tartar	...	...	...	1	1	...
Sweet spirit of nitre	...	...	...	1	...	1
Self-raising flour	...	...	...	2	2	...
Crestona cake flour	...	...	...	1	1	...
Custard powder	...	...	...	1	1	...
Milk pudding	...	...	...	1	1	...
Cornflour	...	...	...	2	2	...
White pepper	...	...	...	2	2	...
Machine skimmed milk	...	...	...	1	1	...
Condensed milk	...	...	...	1	1	...
Beef suet	...	...	...	1	1	...
Ginger buns	...	...	...	1	1	...
Ground rice	...	...	...	1	1	...
Jelly	...	...	...	2	1	1
Tapioca	...	...	...	1	1	...
Mustard	...	...	...	1	1	...
Black pepper	...	...	...	1	1	...
Baking powder	...	...	...	1	1	...
Totals	...	...	...	178	158	20

The extent of the adulteration of the 20 samples which were found not to be genuine, was as follows :—

- MILK. (1) Deficient in milk-fat, 16·6%
- (2) Deficient in non-fatty solids, 11·5%
- (3) Deficient in non-fatty solids, 11·5%
- (4) Deficient in non-fatty solids, 10·9%
- (5) Deficient in non-fatty solids, 10·2%
- (6) Deficient in milk-fat, 16·6%
- (7) Deficient in milk-fat, 28·3%
- (8) Deficient in non-fatty solids, 15·3%
- (9) Deficient in milk-fat, 8·3%

- (10) Deficient in milk-fat, 6·6%
- (11) Deficient in milk-fat, 3·3%
- (12) Deficient in milk-fat, 5·0%
- (13) Contained 2·3 parts per 100,000 of formaldehyde
- (14) Contained 2·3 parts per 100,000 of formaldehyde
- (15) Deficient in non-fatty solids, 1·9%
- (16) Deficient in non-fatty solids, 6·1% and milk-fat, 21·6%

PRESERVED CREAM ...(17) Contained ·45% of boric acid.

CAMPHORATED OIL ...(18) Deficient in camphor by 20%.

SWEET SPIRIT OF

NITRE(19) Deficient in ethel nitrite, 46·7%

JELLY(20) Contained ·07 grn. metallic copper per lb.

The vendors in the cases of the 16 adulterated milk and one preserved cream samples were cautioned by the Health Committee. The deficient samples of camphorated oil and sweet spirit of nitre were followed by formal samples. In the case of the sample of jelly, the manufacturer of the article was written to, and he replied that upon receipt of our letter he had instructed his chemist to look into the matter. The chemist afterwards reported that he too had found the metallic copper complained of, and upon examination it had been found that the manufacturing pans were cracked. These pans the manufacturer promised to have renewed at once.

The following table shows the work carried out under the Milk and Cream Regulations, 1912 and 1917.

MILK AND CREAM NOT SOLD AS PRESERVED CREAM.

	Number of samples examined for the presence of a preservative.	Number in which a preservative was reported to be present.
MILK ...	96	Nil.
CREAM ...	Nil.	Nil.

Dairies, Cowsheds and Milkshops.—All dairy farms, including byres, milk stores, etc., are visited and inspected at least twice a year, and the cows examined by a veterinary inspector. A sample of milk is taken direct from any cow suspected of being infected with tuberculosis. All other dairies and milkshops registered for the sale of milk are periodically inspected, as well as the condition of milk vessels, measures, etc.

The number of dairy farms at the end of the year was ... 19

The number of dairies and milkshops do. do. ... 85

Six samples of milk were taken from cans at the North Shields Railway Station for examination by animal inoculation for tubercle. In no case was a positive result obtained.

Offensive Trades.—The following offensive trades are carried on within the borough :—guts scraping, 1 ; fish and potato frying, 37 ; dealer in bones, animal skins, etc., 1 ; fish manure making, 1 ; tallow melting, 1 ; and tripe boiling, 3.

These trades are all kept under close observation and frequently inspected with a view to keeping down any nuisance or offensive effluvia.

Factories and Workshops.—During the year 547 visits were made to factories and workshops, and where defects or insanitary conditions were found, notices were served on the occupiers concerned.

The following matters were notified by H.M. Inspector of Factories as remedial under the Public Health Acts :—

Want of Cleanliness ... 1 Remedied after service of notice 1

Sanitary Accommodation:—

Insufficient ... 2 do. do. 1

Unsuitable or defective ... 2 do. do. 2

No outworkers' lists under section 107 were received during the year.

List of Workshops on the Register at the end of the year.

Basket Makers	2	Farriers	1	Paint Manufacturers	2
Bakers	19	Fish Curers	30	Photographers	5
Boiler Makers	1	Gas Manufacturers	1	Picture Framers	1
Boat Builders	1	Hosiers	2	Perfumers	1
Bicycle Repairers	2	Ice Manufacturers	2	Plumbers	7
Biscuit Manufacturers	1	Jewellers	3	Printers	6
Blacksmiths	5	Joiners	21	Rag Sorters	1
Block & Mast Makers	1	Laundries	5	Saddlers	1
Brick Makers	2	Lead Manufacturers	1	Salt Packers	1
Cabinetmakers	2	Metal Founders	4	Sausage Makers	3
Cartwrights	1	Milliners	11	Shoemakers	11
Coffee Grinders	2	Mineral Water Makers	2	Skin Dresser	1
Coach Builders	3	Net Makers	2	Sugar Boiler	1
Compass Adjusters	1	Oil and Guano		Tailors	23
Confectioners	1	Manufacturers	1	Timber Merchants	7
Dressmakers	12	Patent Soap		Tinsmiths	3
Drysalts	1	Manufacturers	1	Tripe Preparers	2
Dyers	1	Patent Fire Lighter		Upholsterers	3
Engineers	13	Manufacturers	1	Waggoners	1
					Total
					239

Rag Flock Act, 1911.—Attempts were made during the year to obtain samples of rag flock for analysis, but as the upholsterers in the borough are using fibre instead of flock, I was unable to obtain samples.

Rats and Mice (Destruction) Act, 1919.—As officer under this Act, I visit all rat infested premises and give advice and instructions to the occupiers as to the best available means of destruction or using poisonous bait. This is followed up with a view of exterminating all the rats on the premises as far as possible. There appears to be a great reduction in the number of rats prevalent in the borough, compared with the number during the previous year.

Seamen and Common Lodging Houses.—There were 28 seamen's and 7 common lodging houses on the register at the end of the year, which provided accommodation for 428 seamen and 274 male lodgers in the common lodging houses. There is no provision made in any of the lodging houses for females.

A large building known as the Sailors' Home has accommodation for 84 men, and very frequently provides accommodation and clothing, etc., for shipwrecked crews.

HOUSING.

By the courtesy of the Borough Surveyor I am enabled to give the number of new houses erected during the year, as shown in the following table :—

WARD.	NUMBER OF ROOMS.						
	1	2	3	4	5	6	7 & over
Collingwood	16	122	27	...	...
Dockwray	10	...	...	...
Linskill	4	...	...
Totals	16	132	31	...	...

Of the above 16 three-roomed dwellings ; 121 four-roomed dwellings, and 25 five-roomed dwellings in Collingwood Ward, and 10 four-roomed dwellings in Dockwray Ward, were provided under the Corporation Housing Schemes.

(a) Total	...	...	...	...	...	179
(b) As part of a municipal housing scheme	...					172

1.—Unfit Dwelling Houses.

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts.)	...	...	...	...	...	1,011
(2) Number of dwelling houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	...	...	...			578
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	...	...	...	...	...	87
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	...	...	...	...	...	994

2.—Remedy of defects without Service of formal Notices.

Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers.	583
--	-----	-----	-----	-----	-----	-----	-----	-----

3.—Action under Statutory Powers.

A. Proceedings under section 28 of the Housing, Town Planning, etc., Act, 1919.

(1) Number of dwelling houses in respect of which notices were served requiring repairs	...					12
(2) Number of dwelling-houses which were rendered fit						
(a) by owners	...	...	...	...	...	10
(b) by Local Authority in default of owners						None
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	...					2

B. Proceedings under the Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	140
--	-----	-----	-----	-----	-----	-----

(2) Number of dwelling-houses in which defects were remedied—

(a) by owners	...	...	...	...	...	105
(b) by Local Authority in default of owners						None.

C. Proceedings under sections 17 and 18 of the Housing, Town Planning, etc., Act, 1909.

(1) Number of representations made with a view to the making of closing Orders	...	...	...	...	5
(2) Number of dwelling-houses in respect of which Closing Orders were made	...	...	...	...	5
(3) Number of dwelling-houses in respect of which Closing Orders were determined the dwelling-houses having been rendered fit	...	...	...	...	1
(4) Number of dwelling-houses in respect of which Demolition Orders were made	...	...	...	...	None.
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders	...	...	...	...	None.

I am, Gentlemen,

Your obedient servant,

GIBSON EDWARDS,

Chief Sanitary Inspector.

TABLE I.
Vital Statistics of Whole District during 1921 and previous Years.

YEAR.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.				
	Population estimated to middle of each Year.	Nett.		Number.	Rate.	of Non residents regist'r'd in the District.	of Residents not regist'r'd in the District.	Under 1 Year of Age.		At all Ages.		
		Un-correct'd Number.	Number.					Rate.	Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1912	59809	1752	1734	28·9	1001	16·7	83	39	177	102	957	16·0
1913	60601	1766	1748	28·8	974	16·7	76	53	215	123	951	15·6
1914	60688	1753	1736	28·6	1038	17·1	93	47	230	132	992	16·3
1915	58199	1573	1549	26·6	1103	18·9	129	59	211	136	1038	17·8
1916	57192	1599	1573	25·2	1071	18·7	151	48	191	121	968	16·9
1917	57591	1441	1416	22·05	936	16·2	108	67	167	117	895	15·5
1918	55758	1471	1471	23·5	1199	21·5	141	83	169	114	1141	20·4
1919	58007	1625	1613	26·5	1150	19·8	132	46	200	123	1064	18·3
1920	60541	1955	1947	32·1	1030	18·7	125	51	180	92	956	15·8
1921	63900	1723	1708	26·7	955	14·9	125	47	176	103	877	13·7

Area of District in acres (exclusive of area covered by water), 4,288.

Total population at all ages, 58,816.
Number of inhabited houses, 12,783.
Average number of persons per family, 4·5.

} At Census of 1911.

TABLE II.—Cases of Infectious Disease notified during the Year 1921.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.							TOTAL CASES NOTIFIED IN EACH WARD.								TOTAL CASES REMOVED TO HOSPITAL.				
	At all Ages.	At Ages—Years.						1	2	3	4	5	6	7	8		9			
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.											65 and upwards.		
Malaria	5	...	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	3	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	14	...	1	5	1	7	...	...	3	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	4	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia Neonatorum	27	27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	299	...	45	212	37	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	49	2	9	35	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	34	2	2	2	3	11	10	4	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	106	5	35	17	14	12	15	8	...	...	...	...	...	...	...	...	...	...	...	...
Influenzal Pneumonia	8	...	...	...	4	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro Spinal Fever	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis	104	1	2	14	19	55	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Non Pulmonary Tuberculosis...	58	5	15	27	3	6	2	...	5	8	14	...	...	3	7	10	...	...	...	...
Totals	712	42	109	314	87	105	42	13	98	87	111	68	40	65	73	95	...	...	...	316

Moor Park Hospital (Infectious) ... *267 cases. Total available beds at Moor Park Isolation Hospital ... 56
do. (Tuberculosis) ... Number of Infectious Diseases that can be concurrently treated 4

Stannington Sanatorium ...
Woodburn do. ...
Barrasford do. ...
Sanatoria :—Stannington, Northumberland (4 beds).
Woodburn, Edinburgh (4 beds).
Barrasford, Northumberland (2 beds).
Moor Park Hospital, near North Shields (8 beds).

*3 cases of suspected infectious disease were also treated. Total cases 316

TABLE III.

Causes of, and Age at Death during the Year 1921.

Causes of Death.	Nett Deaths at the Subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non- Residents" in Institutions in the District.
	All Ages	Under 1 year	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
1	2	3	4	5	6	7	8	9	10	11
All Causes { Certified ...	847	165	59	28	41	41	110	185	218	...
{ Uncertified ...	30	11	...	...	2	...	...	9	8	...
Enteric Fever ...	5	...	...	...	1	1	3	...	...	4
Measles ...	15	2	8	3	2	...	...	...	...	...
Scarlet Fever ...	3	...	1	...	2	...	...	...	...	1
Whooping Cough ...	15	9	5	1	...	...	...	...	...	3
Diphtheria and Croup ...	3	...	...	1	2	...	...	...	...	2
Influenza ...	18	1	...	...	1	2	5	5	4	1
Phthisis (Pulmonary Tuberculosis) ...	73	...	...	2	8	18	35	10	...	20
Tuberculous Meningitis ...	12	2	4	2	2	1	1	...	...	1
Other Tuberculous Diseases ...	13	3	1	...	2	3	3	1	...	5
Cancer, malignant disease ...	53	...	...	...	...	1	7	27	18	23
Rheumatic Fever ...	1	...	...	...	...	...	1	...	...	...
Meningitis ...	11	3	2	2	2	1	1	...	...	3
Organic Heart Disease ...	54	...	...	...	...	1	5	32	16	21
Bronchitis ...	74	21	5	1	2	...	3	16	26	13
Pneumonia (all forms) ...	69	6	18	7	6	3	11	11	7	12
Other diseases of Respiratory organs ...	8	...	1	1	2	...	1	1	2	1
Diarrhoea and Enteritis ...	30	23	7	...	...	...	...	...	...	7
Appendicitis and Typhlitis ...	1	...	...	...	...	1	...	...	...	1
Cirrhosis of Liver ...	4	1	...	...	...	...	1	2	...	1
Alcoholism ...	1	...	...	...	...	...	...	1	...	...
Nephritis and Bright's Disease..	28	1	...	2	1	...	4	12	8	8
Puerperal Fever ...	1	...	...	...	...	...	1	...	...	1
Other accidents and diseases of Pregnancy and Parturition ...	2	...	...	...	...	1	1	...	...	1
Congenital Debility and Mal- formation, including Prema- ture Birth. ...	65	65	...	...	...	...	...	...	...	10
Violent Deaths, excluding Suicide ...	16	2	1	...	2	...	4	5	2	10
Suicides ...	5	...	...	...	...	...	3	2	...	1
Other Defined Diseases ...	277	37	4	6	5	7	19	61	138	122
Diseases ill-defined or unknown	20	...	2	...	3	1	1	8	5	1
TOTALS ...	877	176	59	28	43	41	110	194	226	273
Sub-Entries (included in above figures :—										
Cerebro-spinal Meningitis ...	1	...	...	...	...	1	...	...	...	1
Pneumonia (Lobar) ...	7	1	...	...	...	2	2	1	1	...
Beri-beri ...	...	...	...	...	...	...	...	...	...	1
General Paralysis ...	2	...	...	...	...	...	...	1	1	...
Specific Disease ...	5	2	...	1	...	...	2	...	...	4
Encephalitis Lethargica ...	1	...	...	...	...	1	...	...	...	...

TABLE IIIA.

Causes of Deaths during the Year 1921.

Allocated to the Wards in which they occurred.

CAUSES OF DEATH.		WARDS.									
		All Ages.	Central.	Cellingwood	Dockwray.	Linskill.	Milbourn.	Percy.	Preston.	Rudyard.	Trinity.
All Causes	{ Certified. . Uncertified ..	847 30	77 2	104 ...	115 4	79 2	82 5	69 3	87 3	148 4	86 7
Enteric Fever...	...	5	...	2	3	...	...	...	...	...	...
Measles	...	15	3	1	3	...	5	...	...	3	...
Scarlet Fever	...	3	...	...	...	...	...	1	2	...	...
Whooping Cough	...	15	1	3	1	3	2	...	...	3	2
Diphtheria and Croup...	...	3	...	...	1	...	...	...	1	...	1
Influenza	...	18	2	1	...	3	1	2	5	1	3
Phthisis(Pulmonary Tuberculosis)	...	73	9	8	7	9	3	5	6	20	6
Tuberculous Meningitis	...	12	2	1	1	1	2	1	...	2	2
Other Tuberculous Diseases	...	13	...	4	2	1	2	...	...	2	2
Cancer, malignant disease	...	53	2	6	8	5	4	2	8	9	9
Rheumatic Fever	...	1	...	1	...	...	...	...	...	...	...
Meningitis	...	11	3	1	2	1	...	2	1	1	...
Organic Heart Disease	...	54	1	8	1	5	7	7	5	14	6
Bronchitis	...	74	11	6	8	2	12	6	6	14	9
Pneumonia (all forms)...	...	69	5	12	12	4	8	4	5	10	9
Other diseases of respiratory organs	...	8	3	...	2	...	1	...	...	1	1
Diarrhoea and Enteritis	...	30	3	4	4	2	6	1	2	7	1
Appendicitis and Typhlitis	...	1	...	1	...	...	...	...	...	...	...
Cirrhosis of Liver	...	4	...	1	1	...	...	...	...	1	1
Alcoholism	...	1	...	...	...	1	...	...	...	...	...
Nephritis and Bright's Disease	...	28	2	...	3	3	5	7	...	6	2
Puerperal Fever	...	1	...	...	...	...	1	...	...	...	...
Other accidents and diseases of Pregnancy and Parturition...	...	2	...	1	...	1	...	...	...	...	...
Congenital Debility and Malformation,inclusing Premature Birth	...	65	7	10	17	6	2	4	2	12	5
Violent Deaths,excluding Suicide	...	16	..	1	1	2	1	2	3	4	2
Suicide	...	5	1	...	1	...	...	2	...	.	1
Other Defined Diseases	...	277	23	30	38	31	21	24	41	40	29
Diseases ill-defined or unknown...	...	20	1	2	3	1	4	2	3	2	2
TOTALS		877	79	104	119	81	87	72	90	152	93
Sub-Entries included in above figures :—											
Cerebro-spinal Meningitis	...	1	...	...	...	...	...	...	1	...	...
Pneumonia (Lobar)...	...	7	...	3	1	...	...	...	1	...	2
Beri-beri	...	...	...	...	...	...	...	...	...	...	...
Ceneral Paralysis	...	2	...	...	1	...	...	...	...	1	...
Specific Disease	...	5	1	..	...	1	...	1	1	1	...
Encephalitis Lethargica	...	1	1	...	...	..	...	...	...	...	...

TABLE IV.

Infantile Mortality during the Year 1921.

Nett Deaths from stated Causes at various Ages under One Year of Age.

CAUSES OF DEATH.				Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 months.	Total Deaths under 1 Year.
All causes :—													
Certified	...	...	...	42	11	7	2	62	36	28	19	20	165
Uncertified	...	...	...	4	2	1	...	7	1	2	...	1	11
{ Small-pox				...	...	...	...	...	...	...	...	...	...
{ Chicken-pox				...	...	...	...	...	...	...	...	...	...
{ Measles				...	...	...	...	...	...	...	1	1	2
{ Scarlet Fever				...	...	...	...	...	...	...	...	...	...
{ Whooping Cough				...	...	...	...	...	4	2	2	1	9
{ Diphtheria and Croup				...	...	...	...	...	...	...	...	...	...
{ Erysipelas				...	...	...	...	...	...	...	...	...	...
{ Tuberculous Meningitis				...	...	...	...	...	...	1	1	...	2
{ Abdominal Tuberculosis				...	...	...	...	...	1	...	2	...	3
{ Other Tuberculous Diseases				...	...	...	...	...	...	...	...	...	...
{ Meningitis (not Tuberculous)				1	...	...	...	1	...	...	1	1	3
{ Convulsions				4	3	1	...	8	2	4	...	1	15
{ Laryngitis				...	...	...	...	...	...	...	...	...	...
{ Bronchitis				...	1	1	...	2	5	7	6	1	21
{ Pneumonia (all forms)				...	...	...	...	...	1	1	2	2	6
{ Diarrhoea				...	...	...	...	...	...	...	1	8	9
{ Enteritis				...	...	...	...	...	7	6	...	1	14
{ Gastritis				...	...	...	...	...	3	3	...	...	6
{ Syphilis				...	...	...	...	...	...	...	...	2	2
{ Rickets				...	...	...	...	...	...	...	...	...	...
{ Suffocation, overlying				2	...	...	...	2	...	...	...	...	2
{ Injury at Birth				...	...	...	...	...	...	...	...	...	...
{ Atelectasis				2	...	...	...	2	...	...	...	...	2
{ Congenital Malformations				4	...	1	1	6	3	...	...	...	9
{ Premature Birth				24	4	4	...	32	2	...	1	...	35
{ Atrophy, Debility, and Marasmus				4	4	1	1	10	6	2	1	2	21
{ Other Causes				5	1	...	...	6	3	3	1	1	14
{ Influenza				...	...	...	...	...	...	1	...	...	1
Totals				46	13	8	2	69	37	30	19	21	176

Nett Births in the year :—Legitimate, 1,625 ; Illegitimate, 83.

Nett Deaths in year of { Legitimate infants, 158.
 { Illegitimate do. 18.

TABLE IV_A.

Infantile Mortality during the Year 1921

Allocated to the Wards in which they occurred.

CAUSES OF DEATH.				WARDS.							
				Total Deaths under 1 Year.	Central.	Collingwood.	Dockway.	Linskill.	Milbourn.	Percy.	Preston.
					1	2	3	4	5	6	7
All Causes :—											
Certified...	...	...	...	165	24	28	31	9	16	7	8
Uncertified	...	...	...	11	1	...	...	1	2	...	...
{ Smallpox ... ..				...	...	...	...	...	...	...	...
{ Chickenpox ... ..				...	...	...	...	...	...	...	...
{ Measles				2	...	...	2	...	...	...	...
{ Scarlet Fever ... ..				...	...	...	...	...	...	...	...
{ Whooping Cough				9	...	2	1	1	1	...	3
{ Diphtheria and Croup... ..				...	...	...	...	...	...	...	...
Erysipelas ... ..				...	...	...	...	...	...	...	...
{ Tuberculous Meningitis				2	1	...	...	...	1	...	...
{ Abdominal Tuberculous				3	...	2	1	...	...	...	...
{ Other Tuberculous Diseases ... ..				...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)				3	...	...	1	1	...	...	1
Convulsions				15	2	...	3	...	1	...	2
Laryngitis ... ..				...	...	...	...	...	...	...	...
Bronchitis				21	6	3	2	...	4	1	...
Pneumonia (all forms)... ..				6	...	2	...	1	2	...	...
{ Diarrhoea				9	1	...	2	...	...	...	1
{ Enteritis				14	2	4	...	1	4	1	1
Gastritis				6	3	...	...	...	1	...	2
Syphilis				2	1	...	...	...	...	1	...
Rickets ... ..				...	...	...	...	...	...	...	...
Suffocation, overlying				2	...	...	...	...	1	...	...
Injury at Birth ... ..				...	...	...	...	...	...	...	...
Atelectasis				2	...	...	...	...	...	...	1
{ Congenital Malformations				9	...	1	3	1	...	...	1
{ Premature Birth				35	2	9	6	2	2	4	1
{ Atrophy, Debility, and Marasmus				21	6	...	8	2	...	...	4
{ Other Causes... ..				14	1	5	2	1	1	1	1
Influenza				1	...	...	...	...	...	...	...
Total Deaths				176	25	28	31	10	18	7	8
Births ... ..				...	181	229	279	165	214	143	153
Infantile Mortality Rate ... ..				...	138	122	111	60	84	48	52